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PPG Industries, Inc. Intellectual Property Dept. One PPG Place Pittsburgh, PA 15272			LAZORCIK, JASON L	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/828,939	Applicant(s) SISKOS, WILLIAM R.
	Examiner JASON L. LAZORCIK	Art Unit 1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 15 January 2008.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-4,6-16,19-29 and 39-43 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-4,6-12,14-16,23-29 and 39-43 is/are rejected.

7) Claim(s) 13,19-22, and 29 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

5) Notice of Informal Patent Application

6) Other: _____

DETAILED ACTION

Claim Objections

Claims 13, 19-22 and 29 are objected to because of the following informalities:

Claim 13, line 11 contains a grammatical error, namely between "is" and "portion". Appropriate correction is required.

Claim 21, line 45 contains a grammatical error, namely between "at" and "surface". Appropriate correction is required

Claim 29, line 3 contains a grammatical error, namely between "into" and "interior". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor or carrying out his invention.

Claim 43 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The newly submitted claim 43 requires that the surface of the shaped press face is "a non-porous surface". After careful review of Applicants specification as originally

filed, the Examiner has been unable to find support for the instant limitation. In short, it is in no manner evident to the Examiner that the Applicant has either recognized or conveyed the criticality of the instant limitation in the original disclosure. Further, one of ordinary skill would not reasonably be apprised of such a requirement for the molding surface. In view of the foregoing, Applicant is required to cancel or amend the instant claim.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6, 9,10,11,12, 29, 39, and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 29 recites the limitation "the sheet pressing position" in line 30. There is insufficient antecedent basis for this limitation in the claim.

The term "securely" in Claims 6, 9, 10, 11, 12 is a relative term which renders the claim indefinite. The term "securely" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For example, it is not evident precisely what the nature of the contact must be in order to rise to the level of being "securely" attached.

Claim Rejections - 35 USC § 102

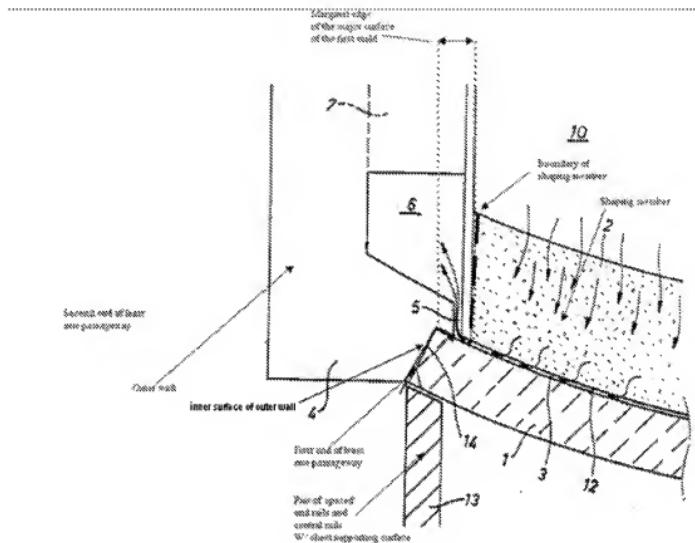
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 6, 7, 12, 14, 41, 42 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Montonen (US 5,383,947).

With respect to the apparatus set forth in applicants claim 1, Montonen teaches a ring mold (13) or second mold comprising a pair of spaced end rails and central rails with an I shaped cross section [Claim 12] and presenting a continuous sheet supporting surface [claim 2]. An upper first mold comprises a central shaping member (2) having a peripheral boundary, an outer wall (4) securely mounted to the first mold defining a "perimeter of the first mold" [Claim 4], and "a marginal edge" located between the boundary of the shaping member and the perimeter of the first mold. "At least one passageway" (5) has a "first end" located in the marginal edge of "a major surface of the first mold" which faces the second mold. Alternately as required by claim 41, the at least one passageway extends through the shaping member, having one end terminating at the major surface of the first shaping mold and said passageway is positioned outside the perimeter or boundary of the shaping member.



It is evident from the above figure 2 that near a closest approach between the upper and lower molds, the outer wall forms an enclosure with said first and second molds wherein the outer wall is "mounted to" the second mold, surrounding the central rails and end rails [Claim 6]. As further noted below in the response to arguments section, it is the Examiner's position that the term "securely attached" is not equivalent to a limitation requiring that the outer wall is integral to or that it is a portion of a single unitary body, namely the second mold. It follows that when the molds are in closest approach (e.g. during a press operation), the outer wall is appropriately construed to be "mounted to" the second mold [Claim 12]. The outer wall of the first mold has one part

of an aligning arrangement [**Claim 7**] (e.g. surface angled from vertical) which cooperates with an aligning arrangement of the second mold (e.g. the rails) as claimed.

Although Montonen is silent regarding the claimed elevator arrangement, such an arrangement is either deemed an integral and implicit component of the disclosed apparatus or alternatively would be considered a trivial modification over the disclosed apparatus by one of ordinary skill in the art at the time of the invention. Specifically, Montonen discloses a press bending station comprising upper and lower molds, and it would be a merely obvious extension over the teachings to incorporate said elevator arrangement in order to affect the relative positioning of said molds in order to load and unload glass sheets and/or to apply a bending force thereto.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Montonen (US 5,383,947) as applied to claim 1 above, and further in view of Jacques (5,437,703).

Montonen fails to explicitly set forth a case wherein the central rails are secured in position and the end rails are pivotally mounted to pivot from a first position providing a generally horizontal support for a sheet to a second position where portions of the ends of the end rails are raised above the central rails. Jacques presents a ring mold having movable ends providing said first generally horizontal support (Fig 9) and said second raised configuration (Fig 11) to achieve deep and/or complex bent shapes (Abstract).

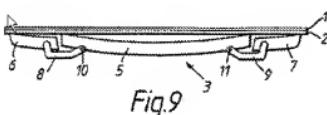


Fig.9



Fig.11

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention seeking to achieve a deep bend in a glass sheet to utilize the reconfigurable ring mold as taught by Jacques in the sheet molding system taught by Montonen.

Claims 8 through 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montonen (US 5,383,947) as applied in the rejections of Claim 1 above and in further view of Skeen (US 6,629,436 B1).

With respect to **Claim 8**, Montonen teaches that the central and end rails have a "I" shaped cross section (as evidenced in the Fig 2 excerpt above) while failing explicitly set forth that they may be constructed with a "T" shaped cross section as claimed. Skeen teaches (Column 2, Lines 3-6) that glass bending ring mold "rails themselves are usually pre-shaped to have a shape to support the unbent sheet while also supplying the mold for the curved or bent sheets" and that (see Fig 5 excerpt and Column 2, Lines 36-39) "the rail member itself may be a bar member that supports the glass sheets slightly inboard of the glass sheets periphery or it may be an "L" or "T" shaped member." It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the central and end rails of the Montonen process to utilize a "T" shaped member as taught by Skeen. This would have been an obvious modification to one seeking to provide adequate support to both an unbent and bent glass sheet.

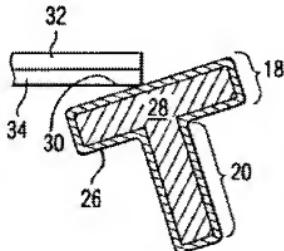


FIG. 5

Regarding **Claim 9** and in light of the rejections of Claims 6 and 12 under 35 U.S.C. 102(b), Montonen teaches that the outer wall connects to the outer surface of the shaping rail when the first and second molds placed in position to form the claimed enclosure. Where the use of a T rail is deemed obvious in view of the Skeen teachings, it would present no more than a trivial extension over the prior art teachings to insure that the outer wall is connected to the outer surface of the vertical member of the T rail.

Claim 10 is obvious in light of the combined rejections of Claim 8 and 9 above.

With respect to **Claim 11**, it is understood that the process of *connecting* the surrounding flange (17) portion of the outer wall to the outer surface of the horizontal member of the "T" rail, as set forth in the rejection of Claim 9, results in a functionally equivalent structure to the one claimed wherein "the outer wall is portion of the horizontal member of the "T" farthest from the open area".

Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montonen (US 5,383,947) in view of Posney (US 3,595,636).

The Montonen apparatus discloses first and second plenum chambers (6 and 10, respectively), vacuum pump (8), conduit (7), valve (9) and teaches of a support plate adjacent to the identified "boundary of the shaping member" (See above annotated figure from Montonen). The Montonen plate presents at least one surface which is coincident with the major surface of the first mold, there is a plenum located over a portion of the plate member, and the shaping member extends away from the surface of the support member. Further, It is evident from the prior art structure that the Montonen

plate member serves a functionally equivalent role as applicants plate member, namely to support or retain the shaping member.

With respect to pending claims 14-18, Applicant requires that "the at least one passageway is "one of a plurality of spaced passageways". The plurality of passageways is further subdivided into "a first plurality of passageways" with a terminal end in the marginal edge of the major surface of the first mold and a second plurality of passageways "passing through the shaping member"

Montonen teaches a continuous groove or "slotted annular structure" which emerges in the marginal region of the major surface of the first mold but remains silent regarding the presence of a plurality of holes in said marginal region. Posney teaches a structured mold having an apertured wall contoured to the desired shape of the bent glass sheet and having elongated, shallow grooves and a row of apertures contained therein for delivery of fluid under pressure to the surface of the glass sheet. With respect to the structure of the mold surface, Posney clearly sets forth that the aperture structure in the disclosed mold is "less fragile than molds slotted throughout their entire thickness" (Column 2, Lines 63-69).

Where the peripheral annular groove of the Montonen mold is understood to embody a structure "slotted through the entire thickness", it would have been obvious to adopt the aperture structure taught by Posney. Restated, it would have been an obvious modification to replace the peripheral annular groove of Montonen with a "first plurality of passageways as taught by Posney. The modification of the Montonen

structure to include holes or apertures within the annular groove would have been an obvious alteration to one of ordinary skill in the art at the time of the invention seeking to make the mold structure less fragile as taught by Posney.

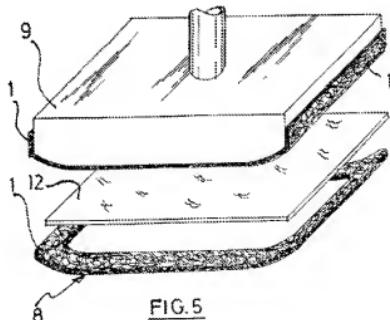
Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Montonen (US 5,383,947) and/or Posney (US 3595,636) as applied above to claim 1, and further in view of Vanhuysee (US 6,276,173 B1).

Montonen teaches that the shaping member may be encompassed in a mesh mat (15) (Column 3, lines 9-25). Montonen fails to explicitly limit the weave density with respect to the size of the openings of the first or second passageways or that the sheet supporting surface of the second mold should be provided with a mesh cloth covering in addition to the one provided upon the press face of the shaping member.

Vanhuyse teaches that "the metallic covering—and the mesh when present—cover the perforations (of the mold surface), so that they partially lose their function...which is to promote the flow of air" and "The use of a coarser mesh has a positive effect on the air permeability, but in turn results in an even more frequent contact between the mesh and glass". While Vanhuyse sets forth the relationship between covering weave density for a ring mold in a glass pressing operation, the tradeoff between adequate air flow and mold face contact with the glass sheet would reasonably be expected to apply for a covering on a press member of the type set forth in the present invention. Specifically, since the role of the passageways in the first mold, as indicated by Montonen, is to provide air flow at the molding surface and a

mesh covering is provided on said surface, it would be obvious to one of ordinary skill in the art at the time of the invention to optimize the weave density of said covering as taught by Vanhuysee. It would be obvious to perform such an optimization in order to provide a covering weave density between a too tight weave which would restrict air flow through the passageways and a too loose weave potentially marring the glass surface by allowing mold face contact on the glass sheet.

Regarding **Claim 23**, Vanhuyse teaches (Column 1, Lines 14-25) "the contact member or covering can for example be used to cover the support rings (pressure and tempering rings)" and "the actual moulding means, such as for example the pressure moulds, can also be covered with the covering." It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize an appropriate fabric covering on both the first and second molds as taught by Vanhuyse in order to minimize direct contact of either of said mold faces with the glass surface in order to minimize undue marring of the glass surface.



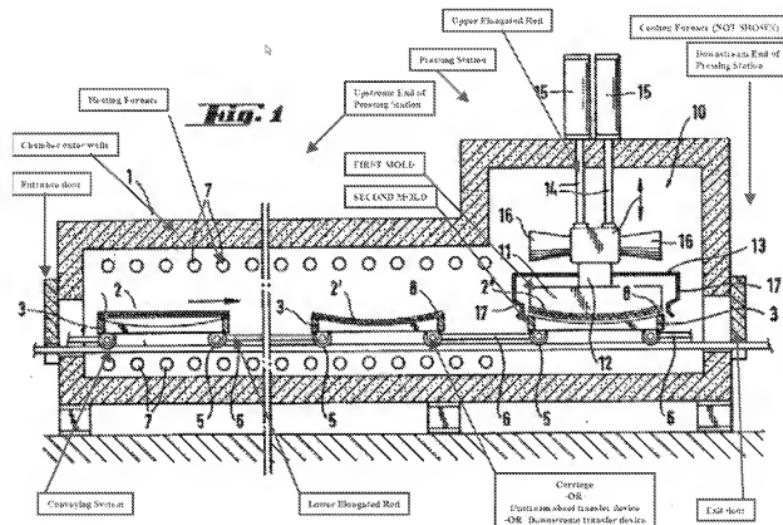
Claims 24, 25, 26, 27, and 28, 29, 39, 40 rejected under 35 U.S.C. 103(a) as being unpatentable over Montonen (US 5,383,947) in view of Kuster (US 5,713,976) and Petitcollin (US 5,017,210) .

As indicated above, Montonen discloses essentially every element of Applicants claimed bending apparatus, however the instant reference remains silent regarding the details of the broader pressing station. As indicated to Applicant in previous Office Actions, the Kuster reference teaches a sheet bending apparatus comprising a concave annular bending block serving as both a bending ring and means for conveyance and a convex bending block acting from above an the surface of the glass sheet.

Kuster further teaches the integration of the mold arrangement into the furnace and pressing station. Specifically, the following excerpt Figure 1 from the Kuster reference has been edited with examiners annotations in order to assist correlation of prior art teachings with applicants claimed elements in applicants chosen lexicon. Details of the operation are also set forth in the immediate reference Column 3, line 56 through Column 4, line 49.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the Montonen pressing arrangement in the broader glass sheet pressing station as taught by Kuster. Such a substitution would have been recognized

as an obvious alternative to one of ordinary skill in the art at the time of the invention seeking to make use of the Montonen device.



Applicants newly presented limitation to claim 29 requires in part that the vacuum pump is connected to the interior of the pressing chamber to remove air from the interior of the chamber and that a conduit extends to outside the chamber. Although none of the previously cited references explicitly provide for this arrangement, the glass pressing station disclosed by Petitcollin (US 5,017,210) explicitly teaches such an arrangement (see fig 1 below). In view of the Penicillin embodiment, it would have represented a merely trivial modification of the Kuster system to provide the vacuum

arrangement outside of the chamber and to provide for a conduit extending through the upper wall of the chamber in communication with the inner chambers of the shaping mold. Such an arrangement would reasonably be expected to reduce operational wear upon the vacuum means and would be an obvious route to reducing equipment maintenance costs.

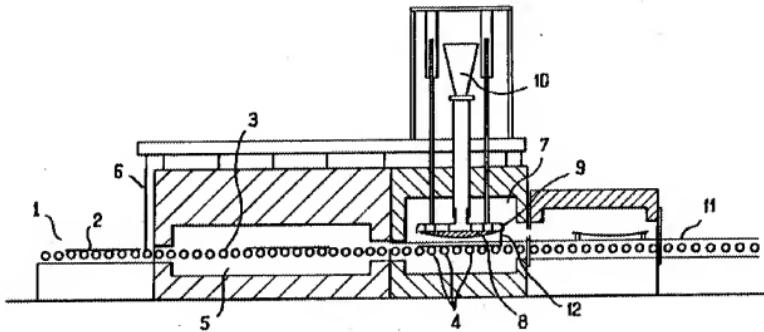


FIG. 1

With respect to claim 39, Kuster teaches the use of a lifting mechanism (15) in order to adjust the spacing between the first and second molds or to "move the second mold towards and away from the first mold". Kuster is silent regarding the specific nature of this lifting mechanism; however it would be well within the prevue of one of ordinary skill in the art at the time of the invention to select an appropriate lifting means (e.g. a piston or a hydraulic jack). Specifically, a piston or a hydraulic jack would have been an obvious choice for adjusting the separation between first and second molds

since these devices utilize few moving parts yet are capable of generating large amounts of lifting force.

With respect to **Claim 40**, the fan (16) described in the Kuster disclosure, here held equivalent to the Montonen fan (8) and likewise held functionally equivalent to the claimed vacuum pump, must implicitly be in fluid communication with the conduit or "the chamber" in order for the apparatus to function as disclosed. Although not explicitly set forth by Kuster, said fan must implicitly be in fluid communication through a hole in the outer wall of the conduit in order to draw the disclosed "partial vacuum" (column 4, line 33) within the casing.

Allowable Subject Matter

Claims 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claim 13 presents limitations drawn to a detachable shaping member (e.g. plate member) and a mounting arrangement on the first shaping member (e.g. support plate). Applicants claim particularly requires that the marginal edge of the major surface of the first mold is a portion of the first major surface of the support plate between the perimeter of the support plate and the perimeter of the plate member. Such a modification and the particular interrelation of mold elements as presently claimed in

claim 13 does not appear on its face to represent a trivial nor obvious modification to the shaping mold disclosed in the Montonen reference.

Claims 19, 20, 21, 22, and 44 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Independent Claim 21 requires in part that "each of the first end of selected ones of the second plurality of passageways has a first part and a second part, wherein the first part has an opening at the press face that has a shape and size at surface of the press face that remains constant for a predetermined distance from the surface of the press face, and the second part has an opening that is smaller than the opening of the first part to provide a stepped recess in the press face, and a plate having a plurality of spaced holes there through in the stepped recess." After careful consideration of the scope and content of the collective prior art references, it is the Examiners assessment that the prior art of record fails to render the claimed mold as an obvious variant of said teachings.

As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Response to Arguments

Claim Objections

1. With respect to the objection to Claims 29, 39, and 40 (Applicants Reply - page 15), Applicants claim amendment has remedied the specific objection

Claim rejections under 35 U.S.C. 112, first paragraph

With respect to the rejection of claims 1-4, 6-16, 19, 20, 29, 39, 40, and 41 under 35 U.S.C. 112, first paragraph;

2. Applicants amendment of claim to read in part "the first end of the at least one passageway is at the marginal edge of the major surface of the first mold" (Page 16 – Applicants Reply) sufficiently addressed the prior noted lack of enablement. To clarify the record on this matter, the Examiners prior contention related to the distinction between the specifications recited "marginal edge portion" and Applicants "marginal edge". Specifically, the Examiner previously took issue with the claim limitation wherein the passageway emerged in the edge as claimed while the specification properly supported said passageway emerging in the planar surface of the mold defined as the "marginal edge portion". It is believed that the instant amendment has remedied the noted rejection.
3. Applicant's amendments to claims 13 and 14 adequately address the outstanding rejection under 35 U.S.C. 112, first paragraph.
4. Applicant's amendment to claim 29 to delete the limitation of "air moving through the conduit can only enter interior of the chamber through the open area" is acknowledged.

In view of the foregoing, it is the Examiners assessment that all outstanding rejections under 35 U.S.C. 112, first paragraph as presented in the Office Action dated October 18, 2007 have been sufficiently addressed. Applicant's arguments on this matter have been fully considered and are persuasive. The rejection of the noted claims under 35 U.S.C. 112, first paragraph has been withdrawn.

Claim rejections under 35 U.S.C. 112, second paragraph

With respect to the rejection of claims 1-4, 6-16, 19, 20, 29, 39, and 40 under 35 U.S.C. 112, second paragraph;

Applicant's amendments to claims 1, 14, and 16 appear to adequately remedy the outstanding rejection of claims under 35 U.S.C. 112, second paragraph. The rejection of the noted claims under 35 U.S.C. 112, second paragraph has been withdrawn.

Claim rejections under 35 U.S.C. 102(b)

With respect to the rejection of claims 1, 2, 4, 6, 7, 12, and 41 under 35 U.S.C. 102(b) and alternately under 35 U.S.C. 103(a), Applicants arguments have been fully considered but are deemed to be unpersuasive.

1. Applicant argues (Pg 18-19) that the wall of the Montonen "contacts the periphery of the glass sheet and does not contact the ring mold". Applicant has amended claim 1 to recite, *inter alia*, that "with a sheet to be shaped in the enclosure, peripheral edge of the sheet to be shaped is spaced from the inner surface of the outer wall". Applicant concludes that since Montonen does not explicitly teach a scenario having the claimed glass sheet positioning, the claimed apparatus is defined over the prior art mold.

On this matter, the Examiner strongly disagrees.

Specifically, Applicants arguments appear to be directed to an intended use for the claimed mold structure and not *per se* to a defining structural difference between the claimed invention and that disclosed in the prior art. Therefore, in response to applicant's argument that the Montonen mold does not teach the alleged glass sheet placement within the mold, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

2. With respect to the rejection of claim 41, Applicant argues that Montonen fails to teach that the "outer wall is securely attached to the second mold.

On this matter, the Examiner disagrees.

In response, the Examiner first notes that the term "securely attached" is not equivalent to a requirement that the outer wall mold part is integral to or that it is a feature of the a single unitary body, namely the second mold. In the last Office Action (see page 2) it was noted that when the molds are in closest approach during a press operation, the outer wall is construed to be "mounted to" the second mold. It is the Examiners position, absent any compelling evidence to the contrary, that under this arrangement the outer wall is appropriately read as being "securely attached to the second mold".

Claim rejections under 35 U.S.C. 103(a)

Claim 3 was rejected under 35 U.S.C. 103(a) as being unpatentable over Montonen (US 5,383,947) in view of Jacques (5,437,703)

3. Applicants arguments directed against the rejection of claim 3 are held to be unpersuasive for the reasons discussed for the claim 1 rejection above.

Claims 8 through 11 were rejected under 35 U.S.C. 103(a) as being unpatentable over Montonen (US 5,383,947) in further view of Skeen (US 6,629,436 B1)

4. Applicant's arguments directed against the rejection of claims 8-11 are held to be unpersuasive for the reasons discussed for the claim 1 rejection above.

Claims 20, 22 and 23 were rejected under 35 U.S.C. 103(a) as being unpatentable over Montonen (US 5,383,947) and/or Posney (US 3595,636) in view of Vanhuyse (US 6,276,173 B1).

5. Applicants arguments directed against the rejection of claims 20, 22, and 23, in so far as they relate to the arguments presented against the rejection of claim 1 above, are held to be unpersuasive for the reasons discussed for the claim 1 rejection above.

Claims 24, 25, 26, 27, and 28, 29, 39, 40 rejected under 35 U.S.C. 103(a) as being unpatentable over Montonen (US 5,383,947) in view of Kuster (US 5,713,976).

6. Applicant's arguments directed against the rejection of claims 24-27, in so far as they relate to the arguments presented against the rejection of claim 1 above, are held to be unpersuasive for the reasons discussed for the claim 1 rejection above.

7. Applicant's arguments, with respect to the rejection(s) of claim(s) 29,29, and 40 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of US 5,017,210.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON L. LAZORCIK whose telephone number is (571)272-2217. The examiner can normally be reached on Monday through Friday 8:30 am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P. Griffin/
Supervisory Patent Examiner, Art
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JLL